

## REMARKS

In the Office Action dated September 4, 2009, claims 2-6 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent Publication No. 2003/0172177 to Kersley et al. (“Kersley”) in view of U.S. Patent Publication No. 2002/0190356 to Buechler et al. (“Buechler”) as evidenced by English, ADA 95: The Craft of Object-Oriented Programming, “Glossary” (“English”). Applicants respectfully traverse the rejections for the reasons set forth below.

### **A. Claims 2-6 Are Not Obvious Over Kersley, Buechler and English**

Applicants have invented a device verification method which provides a single flag for each of a plurality of packet classes so that when a packet from a packet class is generated, that packet is used to test the device for that packet class *only if* the flag for that packet class is in a first state (e.g., “0” to indicate that the packet class has not been tested), at which point the flag is changed to the second state (e.g., “1” to indicate that the packet class has been tested). *See*, claim 2. **In this way, a device is tested by packet class since a packet within each packet class will only be used to test the device if the flag for that packet class has not been set to the second state.** With Applicants’ approach, packets need not be stored in memory, but can instead be “generated” as claimed (e.g., randomly), and each generated packet in a given packet class can be checked against the flag for that packet class to determine if the packet will be used to test the device. In this way, the present invention eliminates the costs associated with storing all possible packets to be tested, and also eliminates the inefficient testing of devices with redundant packets by using a single flag for each packet class to determine if a generated packet in the packet class will be used to test the device.

In rejecting claims 2-6 as obvious over Kersley, Buechler and English, the Examiner asserts that Kersley’s disclosed method for verification of a device-under-test (Kersley, Fig. 2, ¶¶ 5-7, 18, 21-22, 35, and 43) meet the claim requirements except for variously recited requirements of (1) “providing a flag, which may be of a first or a second state, for each of the plurality of packet classes” (claims 2-6); (2) testing the device “if the flag of the packet class of the generated packet is in the first state” (claims 2-3 and 5-6); (3) not testing the device “if the flag of the packet class of the generated packet is in the second state” (claims 3-6); and (4) “changing the flag of the packet class of the generated packet to the second state” “if the flag of the packet class of the generated packet is in the first state” (claims 2 and 5-6). *See, Office Action*, pp. 2-6. To overcome these deficiencies in Kersley’s disclosure, the Examiner cites Buechler’s disclosure (Buechler, ¶ 78) of using “record flags” to assure that all required assay tests are performed and to avoid duplication of testing. *Id.*, pp. 6-8.

In reply, Applicants respectfully submit that a *prima facie* case of obviousness has not been established for claims 2-6 because the Examiner has not met the burden of showing that all the claim limitations are taught or suggested by the prior art. To establish a *prima facie* case of obviousness, the Examiner has the burden of showing that all the claim limitations are taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). To make this showing of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference as proposed by the Examiner. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to modify the reference and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. MPEP §§ 2143.01-03.

In this case, the rejection analysis appears to have mischaracterized the claimed invention by ignoring the requirement that a single flag be used for each packet class to determine:

- (1) whether the device is tested with the generated packet (as variously required in claims 2-3 and 5-6 which require device testing "if the flag of the packet class of the generated packet is in the first state");
- (2) whether the device is *not* tested with the generated packet (as variously required in claims 3-6 which require no device testing "if the flag of the packet class of the generated packet is in the second state"); and/or
- (3) whether the flag is changed to a second state (as variously required in claims 2 and 5-6 which require changing the flag state if the flag of the packet class of the generated packet is in the first state").

In short, Applicants have disclosed and claimed using a single flag for each packet class to drive and determine these various actions (test, not test, change flag state). The Examiner has conceded that Kersley does not meet these flag-based requirements (Office Action, pp 5-6), and indeed there would be no such need suggested or allowed since Kersley teaches using a "packet database 142" to store "standard and/or custom headers, optional trailers as well as predefined payload data." *See*, Kersley, ¶ 63.

The attempted reliance on Buechler to remedy the deficiencies in Kersley's disclosure is also misplaced since Belcher explicitly discloses using a plurality of record flags to track tests and prevent duplication. *See*, Buechler, ¶ 78 ("In order to assure that all required tests are

performed, and also to avoid duplication of testing, record flags or other techniques can be used when the database 464 is accessed to retrieve test instructions. For example, when fluorometer 100 accesses information system 408 to receive instructions for a particular test, that test is flagged as being performed such that subsequent accesses by this or another fluorometer 100 will not retrieve the same test instructions. Once a test is completed and the results provided to information system 408, another flag can be set indicating the status of the test as being completed.”) (emphasis added). Thus, Buechler teaches using a “record flags” such that a first flag is set (when “fluorometer 100 accesses information system 408 to receive instructions for a particular test”) and “another flag” is set (when the test is completed). Rather than meeting the variously recited requirements in claims 2-3 and 5-6 of testing the device “if the flag of the packet class of the generated packet is in the first state,” Buechler discloses accessing the test instructions without first checking the state of an associated flag for the test. Likewise, rather than meeting the variously recited requirements in claims 3-6 of not testing the device “if the flag of the packet class of the generated packet is in the second state,” Buechler discloses accessing “another flag” (not the same flag) to see if the test has been completed. Finally, rather than meeting the variously recited requirements in claims 2 and 5-6 of changing the flag to the second state “if the flag of the packet class of the generated packet is in the first state,” Buechler discloses setting “another flag can be set” (not the same flag) “[o]nce a test is completed and the results provided to information system 408.” In sum, Buechler uses two flags, not one flag as claimed, and sets the flags in response to different triggers than claimed. Buechler’s use of multiple flags for each test should come as no surprise since Buechler’s fluorometer testing scheme is concerned with only a limited number of tests, so there would be no significant penalty in tracking multiple flags for each test. In contrast, Applicants’ disclosed verification scheme is being used to test devices with “several thousand different combinations” of possible packet classes being tested. See, Application, p. 1, lines 20-21.

Another problem with the cited art is that neither Kersley nor Buechler disclose or suggest “providing a plurality of packet classes,” much less “providing a flag ... for each of the plurality of packet classes” as recited in each of the pending claims. On this point, Applicants have carefully reviewed the cited disclosure from Kersley (Fig. 2, ¶¶ 5-7, 18, 21-22, 35, 43), but there is absolutely no teaching or suggestion of any “packet class” test pattern, much less of providing a flag for each “packet class.” Even if one (improperly) assumes that English’s “flag” would be combined with

Kersley's system for generating and testing packets, there is simply no teaching or suggestion that Kersley's packet testing methodology provides "a plurality of packet classes," much less that any of English's flags would be provided "for each of the plurality of packet classes," as recited in the claims. Instead of being concerned with testing by packet class, Kersley is concerned with verifying a device-under-test by "generating packets to simulate complex network packet traffic patterns to test and verify a device under test (DUT)." Kersley, paragraph 5.

In addition to the missing claim requirements, Applicants submit that a person having ordinary skill in the art would not have combined the Kersley and Buechler references in the first place. On this point, the Examiner asserts that:

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify/combine the features of Kersley by using the above-recited features, as taught by Beuchler, in order to provide a method preventing duplication of testing, thus decreasing wasteful testing time and additional resources used by not performing tests that already have been performed (see Beuchler sections 0078). One could have implemented the teaching of Beuchler to the concept of test packets of Kersley, where flags are kept for the different.

Office Action, p. 8 (emphasis added). While this quote is not entirely clear, the Examiner appears to be arguing that the "record flags" described by Beuchler "could" have been used with Kersley's packet-based verification system. But the proper legal standard is not what could a person having ordinary skill in the art do. Instead, the question is what would such a person do. And in this case, the Examiner has failed to show how a person skilled in the art would be motivated to combine the references. See, DyStar Textilfarben GMBH v. C. H. Patrick Co., 464 F.3d 1356, 80 USPQ2d 1641 (Fed. Cir. 2006) ("'[C]onclusory statements such as those here provided do not fulfill the agency's obligation' to explain all material facts relating to a motivation to combine."). As required by the recent KSR decision, the Examiner must provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" and must "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." KSR v. Teleflex, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007). In addition, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." Id. Anything less than such an explicit analysis does not meet the requirement of a *prima facie* case of obviousness.

Applicants respectfully submit that inclusion of Beuchler's "record flags" with Kersley's verification system would not be made by a person having ordinary skill in the art. To add a flag storage requirement to Kersley's system which uses a "packet database 142" to store and generate packets as proposed by the Examiner would actually increase the requirements for storing and processing the flag information, and "record flags" would be unnecessary if the "packet database 142" already stores the packets. In other words, the proposed combination is improper because it would change the principle of operation of Kersley's system by addition additional and superfluous requirements for storing and processing record flags. *See*, MPEP § 2143.01(VI) ("If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.") (citing *In re Ratti*, 123 USPQ 349 (CCPA 1959)).

In the absence of a *prima facie* showing that the requirements of claims 2-6 are disclosed in or obvious over the prior art, or that the cited references would be combined in the first place, Applicants request that the obviousness rejection of claims 2-6 be withdrawn and that the claims be allowed.

### **CONCLUSION**

In view of the remarks set forth herein, Applicants respectfully submit that all pending claims are in condition for allowance. Accordingly, Applicants request that a Notice of Allowance be issued. Nonetheless, should any issues remain that might be subject to resolution through a telephone interview, the Examiner is requested to telephone the undersigned at 512-338-9100.

#### **CERTIFICATE OF TRANSMISSION**

I hereby certify that on December 4, 2009, this correspondence is being transmitted via the U.S. Patent & Trademark Office's electronic filing system.

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Respectfully submitted,

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